



## ABSTRACT

The present invention discloses a generator (1) able to generate either unidirectional current or bi-directional current. A rotatable disc (7) has a conductive track (9) and a ferromagnetic bridge (8). Brushes (12, 13) switchingly open circuit a coil (16) or connect the coil (16) to a load resistor (R). Movement of the disc (7) results in bridge (8) shunting a core (15) of the coil (16). This generates an emf in the coil (16). If the circuit is closed, current flows in the resistor (R). If the circuit is open, no current flows. The arrangement is such that current only flows when the bridge (8) approaches the magnet (14) – not when the bridge (8) recedes from the magnet (14). Thus, only the magnetic attraction for the bridge (8) by the magnet (14) impedes the movement of the disc (7) as the bridge (8) recedes from the magnet (14). without the disc's movement also being impeded by generation of electric current at that time.